

Abstract

Modified thermostable DNA polymerases having enhanced efficiency for incorporating unconventional nucleotides such as those labeled with fluorescein family dyes are advantageous in many *in vitro* DNA synthesis applications. Such enzymes are particularly useful for use in
5 chain termination nucleic acid sequencing protocols, as are native forms of such enzymes. Genes encoding the modified enzymes and methods for their production and use offer cost and efficiency advantages for DNA sequencing.

52-11-1044